

## **PROPOSED CLAIMS**

1. (Presently amended) A method of screening for an oxysterol that activates LXR $\alpha$  mediated transcription, comprising the steps of:
  - (a) introducing a reporter construct and ~~an~~ a human LXR $\alpha$  expression construct into a host cell, wherein transcription of said reporter construct is activated when an oxysterol activator of LXR $\alpha$  binds to the human LXR $\alpha$  protein;
  - (b) treating the host cell with a candidate oxysterol activator of LXR $\alpha$ ; and
  - (c) determining whether said candidate activates human LXR $\alpha$  mediated transcription of said reporter construct,wherein activation of reporter construct transcription indicates that said oxysterol activates human LXR $\alpha$  mediated transcription.
- 2-3. (Canceled)
4. (Previously amended) The method of claim 1, wherein said host cell is selected from the group consisting of mammalian cells and *Drosophila* cells.
5. (Previously presented) The method of claim 4, wherein said mammalian cells are selected from the group consisting of CV1, HeLa, HepG2, COS, 293, F9, and 3T3.
6. (Canceled)
7. (Previously presented) The method of claim 1, wherein said determining step comprises a luciferase assay, a CAT assay, a beta-galactosidase assay, or measuring reporter enzyme activity.

8. (Previously presented) The method of claim 7, wherein measuring reporter enzyme activity comprises using a luminometer, a spectrophotometer or thin layer chromatography.
- 9-16. (Canceled)
17. (Previously presented) The method of claim 1, wherein said candidate oxysterol activator of LXR $\alpha$  is a derivative of 22(R)-hydroxycholesterol, 20(S)-hydroxycholesterol, 24-hydroxycholesterol, 25-hydroxycholesterol, 7 $\alpha$ -hydroxycholesterol or FF-MAS (follicular fluid meiosis activating substance).
18. (Previously presented) The method of claim 17, wherein said derivative is hydroxylated on one or more carbon atoms in the cholesterol backbone of said oxysterol activator, selected from carbon atoms numbered 4, 7, 20, 22, 24, 25, 26 or 27 (FIG. 2B).
19. (Canceled)
20. (Presently amended) A method of screening for an oxysterol that activates human LXR $\alpha$  mediated transcription, comprising the steps of:
- (a) providing a host cell comprising a reporter construct and ~~an~~ a human LXR $\alpha$  expression construct, wherein transcription of said reporter construct is activated when an oxysterol activator of LXR $\alpha$  binds to the human LXR $\alpha$  protein;
  - (b) treating the host cell with a candidate oxysterol activator of LXR $\alpha$  mediated transcription; and
  - (c) determining whether said oxysterol activates human LXR $\alpha$  mediated transcription of said reporter construct,

wherein activation of reporter construct transcription indicates that said oxysterol is an activator of human LXR $\alpha$  mediated transcription.

21. (Presently amended) A method of screening for an oxysterol that activates human LXR $\alpha$  mediated transcription, comprising the steps of:

- (a) providing a host cell comprising a reporter construct and an expression construct, said expression construct comprising a gene encoding ~~an~~ a human LXR $\alpha$  protein, wherein transcription of said reporter construct is activated when an oxysterol activator of LXR $\alpha$  binds to the human LXR $\alpha$  protein;
- (b) treating the host cell with an oxysterol; and
- (c) determining whether said oxysterol activates human LXR $\alpha$  mediated transcription of said reporter construct,

wherein activation of reporter construct transcription indicates that said oxysterol activates human LXR $\alpha$  mediated transcription.

22. (Previously presented) The method of claim 21, wherein said oxysterol is a derivative of 22(R)-hydroxycholesterol, 20(S)-hydroxycholesterol, 24-hydroxycholesterol, 25-hydroxycholesterol, 7 $\alpha$ -hydroxycholesterol or FF-MAS (follicular fluid meiosis activating substance).

23. (Previously presented) The method of claim 22, wherein said derivative is hydroxylated on one or more carbon atoms in the cholesterol backbone of said oxysterol, selected from carbon atoms numbered 4, 7, 20, 22, 24, 25, 26 or 27 (FIG. 2B).

24. (New) The method of claim 1, wherein said human LXR $\alpha$  expression construct is selected from the group consisting of CMX-LXR $\alpha$ , CMX-GAL4-LXR $\alpha$  and A5C-LXR $\alpha$ . [formerly canceled claim 3]

Support for human LXR $\alpha$  derives from at least page 14, line 25 of the specification.

The insect Ecdysone receptor disclosed in Hogness *et al.* is clearly distinct from human LXR $\alpha$ , if only on the basis of its origin. Thus, entry of the amendments will obviate this rejection.